

IN THE CLAIMS:

1. (canceled)
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18. (canceled)
19. (canceled)
20. (canceled)
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22. (canceled)
23. (canceled)
24. (canceled)
25. (canceled)
26. (canceled)
27. (canceled)
28. (previously presented) A dietary or pharmaceutical product, said product comprising at least one modified bovine beta-casein or fragments thereof selected from the group consisting of recombinant or synthetic caseins which do not contain the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).
29. (previously presented) A product according to claim 28

wherein in the sequences Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2), the sequences are modified by the steps of:

- a) changing the amino acids;
- b) removal of said sequences;
- b) substitution of said sequences by the sequence Val-Glu-Pro-Ile-Pro (SEQ ID NO:6); or
- c) a combination of steps a), b) or c).

30. (previously presented) A dietary or pharmaceutical product according to claim 28 wherein the caseins do not contain the sequences Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-His-Asn (SEQ ID NO:3) and Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-Pro-Asn (SEQ ID NO:4).

31. (previously presented) A dietary or pharmaceutical product according to claim 28 further comprising at least one non-bovine casein or fragments thereof selected from the group consisting of naturally occurring, recombinant, synthetic animal or vegetable caseins not containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

32. (previously presented) A product according to claim 31 wherein the recombinant casein is obtained by the following steps: providing a vector suitable for the expression of the casein; transfecting said vector in a cell selected from the group consisting of prokaryotic cell, unicellular eukaryotic cell or a cell derived from a multi cellular organism; and isolating and purifying said casein.

33. (previously presented) A method for the inhibition of the inductive effect of beta casein and its fragments on insulin-dependent diabetes comprising the step of administering to newborns and infants an immunogenic infant formula free of caseins which exhibits molecular mimicry with protein GLUT2.

34. (previously presented) The method according to claim 33 wherein the infant formula is a milk which does not contain caseins containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

35. (previously presented) A method for the inhibition of the inductive effect of beta casein and its fragments on insulin-

dependent diabetes in infants and newborns comprising the step of administering to newborns and infants an infant formula comprising at least one casein or fragments thereof selected from the group consisting of naturally occurring, recombinant, synthetic animal or vegetable caseins not containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

36. (previously presented) A method for the inhibition of the inductive effect of beta casein and its fragments on insulin-dependent diabetes in infants and newborns comprising the administration to newborns and infants a milk which does not contain caseins containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2), said casein being obtained by the following steps: providing a vector suitable for the expression of the casein; transfecting said vector in a cell selected from the group consisting of prokaryotic cell, unicellular eukaryotic cell or a cell derived from a multi cellular organism; and isolating and purifying said casein.

37. (new) A product comprising at least one modified bovine beta-casein or fragments thereof selected from the group consisting of recombinant or synthetic caseins which do not contain the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

38. (new) A product according to claim 37 wherein in the sequences Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2), the sequences are modified by the steps of:

- a) changing the amino acids;
- b) removal of said sequences;
- b) substitution of said sequences by the sequence Val-Glu-Pro-Ile-Pro (SEQ ID NO:6); or
- c) a combination of steps a), b) or c).

39. (new) A product according to claim 37 wherein the caseins do not contain the sequences Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-His-Asn (SEQ ID NO:3) and Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-Pro-Asn (SEQ ID NO:4).

40. (new) A product according to claim 37 further comprising at

least one non-bovine casein or fragments thereof selected from the group consisting of naturally occurring, recombinant, synthetic animal or vegetable caseins not containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

41. (previously presented) A product according to claim 40 wherein the recombinant casein is obtained by the following steps: providing a vector suitable for the expression of the casein; transfecting said vector in a cell selected from the group consisting of prokaryotic cell, unicellular eukaryotic cell or a cell derived from a multi cellular organism; and isolating and purifying said casein.

42. (new) A dietary product comprising at least one modified bovine beta-casein or fragments thereof selected from the group consisting of recombinant or synthetic caseins which do not contain the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

43. (new) A dietary product according to claim 42 wherein in the sequences Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2), the sequences are modified by the steps of:

- a) changing the amino acids;
- b) removal of said sequences;
- b) substitution of said sequences by the sequence Val-Glu-Pro-Ile-Pro (SEQ ID NO:6); or
- c) a combination of steps a), b) or c).

44. (new) A product according to claim 42 wherein the caseins do not contain the sequences Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-His-Asn (SEQ ID NO:3) and Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-Pro-Asn (SEQ ID NO:4).

45. (new) A product according to claim 42 further comprising at least one non-bovine casein or fragments thereof selected from the group consisting of naturally occurring, recombinant, synthetic animal or vegetable caseins not containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

46. (new) A product according to claim 45 wherein the recombinant casein is obtained by the following steps: providing a vector

suitable for the expression of the casein; transfecting said vector in a cell selected from the group consisting of prokaryotic cell, unicellular eukaryotic cell or a cell derived from a multi cellular organism; and isolating and purifying said casein.

47. (previously presented) A method for the inhibition of the molecular mimicry of protein GLUT2 comprising the step of administering to newborns and infants an immunogenic infant formula free of caseins which lack the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

48. (new) A method according to claim 47 wherein in the sequences Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2), the sequences are modified by the steps of:

- a) changing the amino acids;
- b) removal of said sequences;
- b) substitution of said sequences by the sequence Val-Glu-Pro-Ile-Pro (SEQ ID NO:6); or
- c) a combination of steps a), b) or c).

49. (new) A method according to claim 47 wherein the caseins do not contain the sequences Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-His-Asn (SEQ ID NO:3) and Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-Pro-Asn (SEQ ID NO:4).

50. (new) A method according to claim 47 further comprising at least one non bovine casein or fragments thereof selected from the group consisting of naturally occurring, recombinant, synthetic animal or vegetable caseins not containing the sequences: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) and Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2).

51. (new) A method according to claim 50 wherein the recombinant casein is obtained by the following steps: providing a vector suitable for the expression of the casein; transfecting said vector in a cell selected from the group consisting of prokaryotic cell, unicellular eukaryotic cell or a cell derived from a multi cellular organism; and isolating and purifying said casein.